Recommendation Letter

More inclusive future for all of us

INTENCIVE project addresses the societal challenges of ageing society combined with decreasing population in rural and other remote areas.

There is a dire need for new, accessible and user friendly models, practices and tools for providing different types of high quality health services accessible to all citizens not depending on their age or place of living.

Combining technology to the different phases of service processes with emphasis on the customer orientation means re-thinking and re-planning the health services.

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Importance of eHealth in Europe

The European population is ageing. The low child-birth rate in almost every EU member state is pushing our continent towards the future where the majority of our society will be in its post-reproductive stage of life, with a high number of retired citizens per every working individual. According to the Europe 2020 report, the number of people aged 65 and over, will increase by 45% in the next 20 years. It is a significant group of people, involving highly trained professionals of science and industry, that the European economy could make use of. This is only one of the reasons why promoting active and healthy ageing is so important to all European countries. (European Commission, 2020).

We can all benefit from better-organised healthcare and corresponding services for the elderly. Promoting good healthcare policies is a vital part of European healthcare-related projects. Currently active EU4Health project or the aforementioned Europe 2020: A Strategy for Smart, Sustainable and Inclusive Growth are some of these initiatives. Keeping the elderly in rural areas healthy and active for a longer time will have a positive effect both on productivity and competitiveness of these regions, which usually suffer from brain drain and outflow of young people towards big urban centres.

This situation calls for action and implementation of new, advanced technological solutions as well as policy changes that would suit the healthcare system, housing and living environment to the needs of this growing group of customers. To lower the cost of operation, increase efficiency to handle the demand, and fight with inequality in access to medical help. With this turn in policy and increased level of investments, we would also like to boost the competitiveness and innovativeness on the market for products and services offered to the elderly, creating an environment for new business opportunities.

The EU does not try to define the health policy of member states and force a change. Instead, it seeks to complement national policies and offer support in the development of new solutions or implementation of good practices from other countries of the EU. Many European governments are already aware of the challenges that ageing society brings and are working on research and implementation of new solutions in the area of eHealth and wellbeing.

For example, a smart home can help the elderly to stay independent for a longer time, providing solutions tailored for the specific needs of each customer and collecting data that could help improve received diagnostics. Additionally, that collected data could be analysed by Artificial Intelligence (AI) to understand it even better and discover patterns or negative changes characteristic to specific diseases significantly earlier than a human doctor could.

The aim of the INTENCIVE project was to identify the good practices from partnering regions and to help them get promoted across the EU. It was also important to us to make sure that these good practices are good because users/customers of these solutions/services have actually improved the quality of their life through their implementation.

Data used to create this report have been collected through the series of BIKVA model interviews conducted in five different regions: South Ostrobothnia (Finland), Bretagne (France), Nyugat-Dunántúl (Hungary), Cantabria (Spain) and Gozo (Malta). INTENCIVE project has used a BIKVA model as a tool to evaluate good practices because it offers a unique bottom-up and customer-oriented approach to assessing good practices. BIKVA method has been developed for social services giving voice more directly to the citizens who are using these services. The views of the participants are passed on to the different levels of the organization and finally to the political decision-makers. Experiences of the citizens or end users are therefore driving forces for change, making them co-creators of new, improved services.

We encourage you to familiarise yourself with the results of our project. Below we present barriers that eHealth solutions are facing on their way to becoming universally recognised and a list of good practices from the INTENCIVE partner regions, that you could implement to increase the quality of your local services.

Barriers to address the societal challenge of ageing society

eHealth solutions are facing a number of challenges on their way to the mass adoption. These include policy, regulatory, financial, accessibility and even human factor barriers.

At times, barriers to fully embracing e-health solutions are not technology or constrained budget but **a human factor**. Often it is the unwillingness to accept the change and new solutions, that is deeply rooted in professionals who through their entire career, practised a certain way of completing specific tasks. Therefore a proper implementation strategy has to be developed to make sure that once introduced solutions will catch on and become new standards. Correct integration of eHealth solutions into existing healthcare structures is a key to successful implementation.

The digital illiteracy of the elderly is a common problem. Older citizens are not always able to learn how to use new and complicated electronic devices or digital services. Sometimes it can be so that a memory loss causes that capacities people once used to have are lost and remembering a complicated sequence of pressing the right buttons becomes impossible. This **accessibility issue** can cause deep frustration and resentment towards even the best eHealth solutions. All devices and services to be used by the elderly should be designed with ease of use in mind.

However, ease of use cannot shadow the adequate **data protection** level. Digital services that process or store personal or any other sensitive data, have to comply with GDPR as well as follow country-specific regulations.

Hiring more doctors or nurses and delivering them regularly to remote locations is a great expense for often tight budgets that these smaller local authorities have, but also to central governments which refund some of the **costs**. This is where technology comes to the rescue. Through the implementation of smart solutions, automatisation and artificial intelligence, costs can be brought down in a long term and fewer people are needed to serve the same number of customers.

New technologies can also help with the **continuity and repetition of rehabilitation or mental training** to achieve long-lasting mental and physical fitness. People tend to forget or skip trainings. Smart devices and software can encourage users in the right way to follow the planned training routine.

These devices can advise users on the right way of completing the exercise and measure their performance. The elderly can take care of their mental and physical health on their way. The role of a sports instructor can be taken by a smartwatch or a virtual reality headset with fitness software. Various online games can help improve the mental condition and improve memory.

Virtual reality games and online social interaction are also helping to fight off one another barrier faced by many elderly people - **loneliness**. It has been proven by researchers that loneliness has a bad influence on human health. Through different devices, older citizens can participate in various events and gatherings from the comfort of their homes and keep in contact with their friends without the need to travel too often.

Extending on the aforementioned problem, another barrier that elderly people are facing in modern society is often **a lack of understanding of their deficiencies and needs**. They see the world differently compared to younger and fully capable citizens. That is why social interaction training especially for service companies' workers could greatly improve the quality of the service elderly people receive. Speaking slowly and loudly, taking into consideration the needs of people with impaired memory, sight or hearing. These are instructions that should become a comprehensive part of every employee training in the future.

One more barrier that can be overcome through modern eHealth solutions is **the insufficient speed of contemporary health monitoring and diagnostics methods**. The time it takes between symptoms occurring to being noticed is often the most crucial to either stop or significantly slow down the development of more serious conditions. Non-stop health monitoring devices like a smartwatch or smart-sensors placed in crucial environments, e.g. a bed, and a use of trained AI, can significantly increase the speed of diagnostics. Additionally, in a life-threatening situation, it could automatically inform responsible parties. A well-known case is the use of smartwatches that can detect a sudden fall of their wearers and inform emergency services about it and share their location.

Good Practices

To effectively combat the barriers in rural areas, new technologies and determined political action have to be implemented at many levels. Next we present a set of Good Practices and policy proposals that could help to change for better. Check all Good Practices on our website.

1. Showrooms for wellbeing technology

The showroom demonstrates modern equipment from eHealth and telemedicine expertise and services to smart home solutions, robotics and artificial intelligence all related to ageing and rehabilitation. Demonstration environment serves the needs of local social and health care, wellbeing as well as rehabilitation companies. It is a place for organisations to test and try out their ideas.

2. Memory and aging friendly model

Memory and age-friendly company model developed by the Memory Association helps SMEs (small and medium-sized enterprises) from different fields to improve their services offered to the elderly. SMEs have completed the coaching sessions and have been able to develop their services to be memory and age-friendly.

3. Modern simulation learning environment in health and social care

Simulation pedagogy can be used to prepare for various client and family counselling situations and to practice communication and interaction for interdisciplinary teamwork. Practice makes perfect. Professionals who are able to face a stressful situation in a controlled environment are later doing better in the field.

4. VIGILANS - suicide prevention system

VigilanS tailors surveillance to individuals discharged from the hospital after a suicide attempt. At discharge, every attempter is given a crisis card with an emergency number to contact in case of distress. All the contacts are automatically scheduled by the VigilanS web application according to personal risk level.

5. Remote Pre-Operative Assessment in Anesthesia

Video consultations can be also used to prepare patients for their surgery. It will help doctors to prepare their patients both physically and mentally. Quite importantly, it is also going to increase preoperatory consultations efficiency and make waiting lists much shorter.

6. Remote monitoring for post-surgical patients: Homecare Hospitalization

Remote monitoring is inherent in the way of working in the Home Hospitalization Service. The use of telemonitoring devices have allowed patients to visit the hospital on an outpatient basis. Patients rated this mode of hospitalization very positively since they feel safe, less stressed and more involved in their recovery process.

7. Brain@Home: Moving and enhancing brain training

With the help of intelligent solutions senior citizens' social and health condition can improve, which will increase their (action) independence, and by default, improve their quality of life. That is why Brain@Home good practice offers senior citizens access to various online games in a virtual environment. They can meet their friend, do fitness, play cards or watch a movie together in a virtual cinema.

8. Pervasive Electronic Monitoring (PEM)

People with dementia have a significantly harder life. PEM project aims to increase the quality of their lives by assisting them in their daily activities as well as enabling their social engagement with other persons, which includes caregivers, family members as well as other members within their community. Learning is done through research, organizing several focus groups, controlled experiments and developing prototypes.

9. REHAB LAB (disability & 3D printing)

A Rehab-lab is a fab-lab integrated into a healthcare organisation where people with disability can design their own assistive devices using 3D printing. Buying prosthesis from professional manufacturers is often extremely costly, and therefore out of reach for many. Designing it in-house and 3D printing lowers the cost to an absolute minimum. It allows also for maximum flexibility and personalisation of the design.

10. CoME - Caregivers and Me

Self-monitoring system for elderly with miniaturized wearable wellbeing sensors connected to an easy-to-use, simplified website specialized for them. The CoMe platform will include an analysis of the information/data obtained from the seniors: detection of anomalies, analysis of temporal aspects and early detection of risky behaviours.

11. Using technology for the well-being of elderly with special needs

Providing the elderly with access to modern technologies is helping to fight the digital exclusion of this group. Community centres have been equipped with educational tablets and computers customized according to the likes of the elderly. Caregivers confirm that the happiness levels of the elderly with special needs increased with these activities.

12. myGozo app & myHealth portal

Through the myGozo app, citizens can apply for a range of assistance and health services, e.g., home help service, handyman services, hairdressing, physiotherapy or even occupational therapy. Additionally, the myHealth portal allows citizens and private doctors to access and view patients' medical records maintained in the public healthcare system.

About societal challenges of the future

What is the INTENCIVE project?

The INTENCIVE project addresses the societal challenge of an ageing society combined with decreasing population in rural and other remote areas.

Benefits of introducing eHealth good practices

eHealth has three main advantages:
- Lowers the operation costs of the healthcare system by increasing its efficiency.
- Allows to handle a higher demand as it eliminates time-consuming activities like transportation of healthcare personnel
- Helps to fight inequalities between rural areas and urban centres giving all elderly equal access to healthcare and wellbeing services.

Implementations in partner regions

You can find more information about partner regions action plans on our website. Click here.

For more information
Visit the INTENCIVE project website:
interregeurope.eu/intencive/